

Message

From: Kulik, Ed (E.C.) [ekulik@ford.com]
Sent: 2/18/2014 6:45:07 PM
To: Ball, Joel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=92af2ab6f5274bc597249d04358ef25f-Ball, Joel]; Sadler, Alan (A.C.) [asadler@ford.com]
CC: Rauser, Jacob (J.E.) [jrauser@ford.com]; Whitbeck, Neil (N.G.) [nwhitbec@ford.com]
Subject: RE: Meeting Minutes - Ford EPA Discussion Outcomes on N2O for HD-GHG

Hi Joel,

My team has run into a VERIFY process issue when trying to address GHG requirements for our 2015 My gasoline heavy duty chassis certifications that we have conducted testing on.

- The issue is created because our heavy duty chassis certifications are optionally certified to Tier 2 (light-duty) requirements. Per the Tier 2 provisions, we have tested for criteria emissions compliance at LVW (light duty test weight). However, the GHG rule requires these same programs to test at ALVW (heavy duty test weight). In addition, EPA confirmatory tested one of our test groups for criteria emissions compliance at LVW, which has solidified our criteria emissions data for submittal in the application.

To address the GHG requirements, we have circled back and retested at heavy duty test weights (ALVW), but we cannot directly submit the data to VERIFY because we have a mix of criteria emissions data and GHG data under different test weights (i.e., different vehicle configurations). In order to submit our application for review/approval, our plan is to follow the agreement below. We will include the GHG data associated with our ALVW test (heavy duty test weight) in the comments field of Section 7. Ford will include in CSI comments the Full Useful Life test results and the associated standards, indicating the N2O was taken through a separate test. The criteria emissions data taken from the EPA confirmatory test results will be submitted to VERIFY.

If you have any concerns with this approach, please contact me. Otherwise, please recognize that we are proceeding per the above plan.

Thanks.

Ed

Ed Kulik

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From: Ball, Joel [mailto:ball.joel@epa.gov]
Sent: Tuesday, December 10, 2013 10:13 AM
To: Whitbeck, Neil (N.G.)
Cc: Kulik, Ed (E.C.); Rauser, Jacob (J.E.); Fagerman, Todd (T.M.); Wehrly, Linc
Subject: RE: Meeting Minutes - Ford EPA Discussion Outcomes on N2O for HD-GHG

Hello Neil,

Byron confirmed that diesel regeneration FTP testing is not required for N₂O (UAF do not need to be applied to N₂O)

Joel Ball
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From: Whitbeck, Neil (N.G.) [<mailto:nwhitbec@ford.com>]
Sent: Friday, December 06, 2013 5:51 PM
To: Ball, Joel
Cc: Kulik, Ed (E.C.); Rauser, Jacob (J.E.); Fagerman, Todd (T.M.); Wehrly, Linc
Subject: Meeting Minutes - Ford EPA Discussion Outcomes on N₂O for HD-GHG

EPA Discussion: Ford14MY HD Chassis N₂O Testing

Date: Friday, December 6, 2013

Attendee List:

Ford: Ed Kulik
Jacob Rauser
Neil Whitbeck
EPA: Joel Ball
Dave Good
Rob French
Linc Wehrly

Summary:

- **Regens** - Based on the Heavy Duty Vehicle GHG regulations, it is Ford's understanding and proposal that diesel regeneration FTP testing is not required for N₂O. This is consistent with Heavy Duty Engine GHG regulations (see 1036.530(a)) and requirements. EPA to check with Byron Bunker and provide feedback by COB Monday (12/9).
- **DFs** - EPA agreed with Ford's proposal to use the same N₂O DF calculation approach as was used and approved by EPA for Ford's One National Program compliance. This approach calculates the N₂O DF as $N_2O\ DF = N_2O\ std \times (NO_x\ DF / NO_x\ Std)$, where both the NO_x std and N₂O std are FTP/Hwy composite stds. For purposes of the NO_x standard calculation, Ford will make use of the California highway NO_x standard, due to the absence of an applicable federal standard for this category of vehicles.
- **Waivers** - The following guidelines were established regarding the necessity of confirmatory testing waivers:
 - **Test Result \leq 90% of N₂O Std.** (or FEL): No waiver required
 - **Test Result $>$ 90% of N₂O Std.** (or FEL): Waiver required. Either an EPA or manufacturer confirmatory test would be required, in accordance with the usual rules.
- **Test Data** - When submitting test data to VERIFY, Ford will include N₂O data in the data file. If an official test has already been submitted, Ford will update the file with N₂O data obtained from a subsequent N₂O -only test and resubmit the test. may be added into a pre-existing FTP test file. with sufficient language added to the CSI comments.
- **CSI** – Ford will include in CSI comments the following: 4k test value, DF, certification level, and applicable standard, and note indicating that N₂O data was determined through a separate test.

- If updates to existing test reports presents an unforeseen issue in VERIFY it will be acceptable to submit the N₂O data as part of section 7 test results table in the certification application.
- EPA will eventually work out a permanent corrective action to address the fact that VERIFY currently does not recognize an FTP/Hwy Composite test type.

Regards,

Neil Whitbeck, Specialty Manager

VEE- Car & Truck Certification

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